

International Conference on Control and Management of Inadvertent Radioactive Material in Scrap Metal

**Tarragona, Spain
23–27 February 2009**

**Organized by the
Spanish Nuclear Safety Council (CSN)**

**In cooperation with the
International Atomic Energy Agency (IAEA)**

**Co-sponsored by the
Ministerio de Industria, Turismo y Comercio (MITYC)
Federación Española de la Recuperación (FER)
Unión de empresas Siderúrgicas (UNESID)
Empresa Nacional de Residuos Radiactivos S.A. (ENRESA)
Ajuntament de Tarragona
Diputació de Tarragona**

1. BACKGROUND

The use of radiation techniques worldwide is subject to specific national and international regulatory systems that include strict control measures. In recent years, however, and in spite of these systems, the presence of uncontrolled radiation sources or materials contaminated with radionuclides of natural or artificial origin has been detected in metallic products destined for recycling.

The presence of these materials has caused various accidents, some with serious consequences for the companies involved, the safety of the environment and, in a few cases, the health of people.

The experience acquired in those countries with an integrated system at the national level, the fact that the metals recycling sector is not normally subject to radiological regulatory systems and the national characteristics of radioactive waste management systems make it advisable for the international community to promote initiatives to foster the implementation of integrated national systems for the prevention of radiological risks in the recycling of metals and to point to their possible components.

Steps have already been taken in certain countries, with the installation of radiation monitoring systems at steel yards and scrap recycling facilities. In certain cases, the national actions have been included in integrated plans covering administrative, financial, operational, materials management, training and informative measures.

Some of these national systems, such as the Spanish protocol, are based on voluntary actions by the industrial sector.

Taking as a reference the ongoing international initiatives and the existing national systems, a list of basic elements might be drawn up to configure optimum integrated national systems for the prevention of radiological risk in the recycling of metals. The following are especially significant among these basic elements:

- A set of legal measures, voluntary agreements or a combination thereof assigning technical and economic responsibilities and defining the functions of each party involved.
- The human, economic and technical resources required to guarantee the efficiency of the system.
- An efficient procedure for controlling any radioactive materials detected to guarantee that their management is accomplished in accordance with safety and security standards appropriate for the situation.
- An action plan for those cases involving incidents with radioactive contamination during the production process, enabling a reduction of the radiological risk and volume of waste as well as a rapid recovery of the installation.
- A rapid and efficient information system facilitating the adoption of protection measures where necessary. It is also advisable that the information system facilitate communication with third-party countries when the cause and/or consequences of the situation transcend national borders.
- A training plan for personnel in the metals recycling industry on radiological risks and protection techniques and instrumentation for the measurement and analysis of radiation, as well as qualified technical assistance in the case of an incident.
- A programme for the periodic review and updating of the system itself, including the objective of spreading the experience acquired from its implementation for systematic improvement.

These national systems might be complemented by a series of international measures, to be developed by international organizations, the basic objectives of which would be:

- To promote the existence of national systems;
- To promote and facilitate homogeneity among the different national systems;
- To identify possible improvements for the harmonization of cross-border control aspects, to facilitate the safe return of any radioactive material in imported

shipments and to facilitate the safe return of any radioactive material detected in another country in exported shipments.

The establishment of national plans of this nature and the adoption of measures of this type at the international level might contribute decisively to reducing the radiological risks arising from the presence of radioactive material in metallic products destined for recycling.

2. CONFERENCE OBJECTIVES

The objectives of the conference are to foster the exchange of international experience gained in recent years in the control and management of radioactive material that has been inadvertently diverted into scrap metal streams; to promote good practices to prevent inadvertent diversion of radioactive material; and to elaborate upon existing international recommendations, and develop new recommendations and guidance as needed.

3. AUDIENCE

The conference is directed to a broad range of experts in several areas, including professionals from the different disciplines involved in the scrap metal recycling industry, decommissioning of nuclear power plants, management of incidents or accidents and environmental remediation, management of radioactive waste, radiation protection, and other industrial sectors such as petroleum and gas exploration. It is aimed at both operators and governmental officials, including persons from regulatory bodies, industry, scrap metal associations and academia, as well as senior policy makers.

4. PROGRAMME STRUCTURE

The conference will be structured so as to facilitate focused discussion of specific topics and issues related to the management of radioactive material that has been inadvertently diverted into scrap metal streams. Senior experts will introduce the major issues during each topical session. Panel sessions will provide an opportunity for a more intensive exchange of views with the audience on important technology and safety issues. Appointed persons will draw conclusions from the presentations and discussions. The closing session will summarize the main conclusions drawn from the topical sessions and from discussions during the conference.

Contributed papers will be displayed during poster sessions.

5. SCOPE OF THE TOPICAL SESSIONS

A sequence of topical sessions will examine the relevant issues, including:

- Global perspective:
 - Situation of the global scale scrap metal market;
 - The importance of adequate control of the inadvertent presence of radioactive material as part of normal procedures;
 - International guidance;
- National policies and strategies:
 - Country experiences;
 - Implementation of adequate national strategies;
 - Assignment of responsibilities;
 - Financing mechanisms;
 - Training and provisions for management of the materials detected, as well as the consequences of incidents and accidents with radioactively contaminated scrap metal;
- Prevention, detection and characterization — compliance with radiological criteria:
 - Prevention, detection and radiological characterization of the materials detected;
 - Feasibility of controls throughout the whole scrap metal chain;
 - Preventive measures and compliance with exemption and clearance values;
- Management of consequences of incidents and accidents with contaminated scrap metal:
 - Management of radiological and other technical consequences;
 - Experience and lessons learned;
- Public attitude and involvement of interested parties:
 - Current situation;
 - Plausible actions in this field.

6. SCIENTIFIC VISIT

One scientific visit to a metal recycling facility is planned.

7. PARTICIPATION

Anyone wishing to participate in the conference must register on-line through the conference's web site, which will be operative as of May 2008. A participant will be accepted only if registration is completed by 15 December 2008.

Details on the logistics of the conference will be available to participants on the conference web site approximately three months before the meeting.

8. CONTRIBUTED PAPERS AND POSTERS

Except for some papers considered by the Technical Committee as exceptionally worth to be orally presented, the contributed papers will not be presented orally.

Concise papers on issues falling within the scope of the conference (see Section 5 above) may be submitted as contributions to the conference. These papers will not be presented orally; they will be included either in a Book of Contributed Papers or made available on the conference web site before the beginning of the meeting. Authors of contributed papers are expected to present the substance of their papers in the form of a poster, which will be exhibited in the poster area.

The contributed papers must not exceed four pages in length and must be submitted in English. Each contributed paper must be preceded by an abstract not exceeding 300 words. Authors should state the topical session to which their contribution relates (see Section 5 above).

Authors are urged to make use of the guidance information provided in the attached "Guidelines for authors on preparation of manuscripts for proceedings".

Contributed papers should be submitted electronically to the following email address:

scrap_conf2009@csn.es

The electronic submission should identify the paper, the proposed session topic and the software application used (the use of Microsoft Word is encouraged). To permit selection and review, the electronic version of the contributed paper together with a signed Form for Submission of a Paper/Poster must be received by the Scientific Secretariat no later than **18 July 2008**.

Only papers that have been received by the above deadline will be taken into consideration. The conference organizers reserve the right to exclude papers that do not comply with the minimum technical standard or do not apply to one of the topics listed in Section 5 above.

Authors will be informed by the **beginning october of 2008** whether their papers have been accepted for presentation as a poster.

9. EXPENDITURES/GRANTS

No registration fee is charged to participants.

As a general rule, the organization does not pay for participants' travel and living expenses.

However, the International Atomic Energy Agency (IAEA) has limited funds available to help meet the cost of the attendance of selected specialists, mainly from developing countries with low economic resources. Selection preference will be given to applicants with an accepted contributed paper. Generally not more than one grant will be awarded to any one country.

To apply for a grant, please send the IAEA Grant Application Form (attached) through the competent national authority (Ministry of Foreign Affairs or national atomic energy authority) to reach the IAEA not later than **18 July 2008**. For further information, please visit the IAEA web site: <http://www-pub.iaea.org/MTCD/Meetings/Meetings2009.asp>

The grants awarded will be in the form of a lump sum, usually covering part of the cost of attendance. Incomplete or late applications will not be considered.

10. DISTRIBUTION OF DOCUMENTS AND PROCEEDINGS

A preliminary conference programme will be available on the conference web site approximately three months before the meeting

The final programme will be available upon registration at the conference.

The proceedings will be published as soon as possible after the conference.

11. WORKING LANGUAGE

The working language of the conference will be English, simultaneous interpretation into Spanish will be available.

All communications must be sent to the organizers in English.

12. ACCOMMODATION

Detailed information on accommodation will be available on the conference web site at least six months prior to the meeting. A number of hotel rooms will be blocked by the organizers and be made available through the conference web site in due time.

13. VISA

Participants who require a visa (Schengen visa) to enter Spain should submit the necessary application to the nearest diplomatic or consular representative of Spain as soon as possible. Please note that this process could take up to one month.

14. KEY DEADLINES

- May 2008:** Conference's web site operative for on-line registration
- June 2008:** Second Conference Announcement
- 18 July 2008:** Submission of contributed paper and Form for Submission of a Paper/Poster
- 18 July 2008:** Grant Application Form to be sent to the IAEA through the competent national authority of a Member State of the IAEA
- 15 December 2008:** On-line registration

15. CONFERENCE WEB PAGE

A conference web site will become available in May 2008. In the meantime, you may visit the IAEA web site: <http://www-pub.iaea.org/MTCD/Meetings/Meetings2009.asp> for information on grant applications, new information and the link to the future web site.